

# Idaho Transportation Department Symposium

Tuesday, August 22, 2000 – Boise, Idaho



## Questionnaire Results

September 28, 2000

Prepared for ITD Division of Planning by Bracke & Associates, Inc.



## ABSTRACT

On August 22, 2000, the Idaho Transportation Department (ITD) sponsored a Symposium entitled “The Coming World of Transportation.” Board members, management, employees and others heard from futurists, humorists, subject matter experts and other transportation professionals about the future of the transportation industry.

As part of the Symposium, participants provided their thoughts and recommendations to ITD in response to presentation-specific questionnaires.

The *Results Summary* (September 28, 2000) describes the objectives, process and summarizes the results. Questionnaire input is included verbatim in appendices to the *Results Summary*.

Recommendations emphasized a number of areas, including:

Category	Types of Comments
<b>Planning</b>	<b>Subcategory 1:</b> <b>Vision, mission, and planning process.</b> This subcategory contains comments related specifically to <ul style="list-style-type: none"> <li>• Vision &amp; mission</li> <li>• ITD’s approach or process to develop its vision, mission and strategic plan</li> </ul>
	<b>Subcategory 2:</b> <b>Factors.</b> This subcategory contains comments related specifically to <ul style="list-style-type: none"> <li>• Planning comments relative to highways, construction, operations, maintenance, public transportation, organizational development, land use, corridor preservation, demographics, technology and others where “planning” is the recommendation’s emphasis</li> </ul>
<b>Technology</b>	<ul style="list-style-type: none"> <li>• Recommendations specific to technology</li> </ul>
<b>Organization, management and staff</b>	<ul style="list-style-type: none"> <li>• Organizational structure</li> <li>• How to manage ourselves</li> <li>• Training and skills</li> <li>• Attracting and keeping employees</li> <li>• Involving employees</li> </ul>
<b>Outside involvement and information</b>	<ul style="list-style-type: none"> <li>• Information about larger external influences (demographics, driving population, etc.)</li> <li>• Influence and input from customers, the public, and local units of government</li> <li>• Input and coordination with the state and congressional leadership for planning, funding purposes</li> <li>• Customer service</li> </ul>
<b>Attitude</b>	<ul style="list-style-type: none"> <li>• Comments about how we approach or think about things</li> </ul>
<b>Money</b>	<ul style="list-style-type: none"> <li>• Funding</li> <li>• Revenues</li> <li>• Expenditures</li> <li>• Allocations</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>• Comments that did not fall into the above categories</li> </ul>

Category	Types of Comments
	<ul style="list-style-type: none"><li>• Comments that did not include a response to question #3</li></ul>

In many instances, participants made specific recommendations. In other instances, participants' input generates an internal debate, the results of which may propel the agency in one direction or another.

Within each of the categories, the following reflects the predominant input:

1. While some expressed satisfaction with the existing vision, mission and planning process, there was a strong interest in revisiting the vision and mission to ensure it was shared agency-wide, that the process incorporated forecasting activities, and that programmatic options and flexibility were integral to the plan.
2. Participants want ITD to be able to embrace technology and use it to ITD's and its customers' best advantage—in agency operations and in the development of transportation facilities—in an efficient manner.
3. The highest emphasis was placed on ensuring staff had opportunities for training to prepare them to work with new and evolving technologies. Participants also questioned skill mix and organizational structure.
4. There is a strong consensus that ITD needs to build on its relationships with those outside of ITD—with the public, local governments, municipal planning organizations, and elected officials at the state and federal level.
5. Participants encouraged flexibility, a proactive and innovative approach to work, risk-taking without the fear of rebuke in the event of a mistake, and more humor in the work place.
6. Participants encouraged ITD to be proactive about pursuing funding, suggested innovative ways for generating revenues, and discussed realities associated with the distribution of funds within the department.

ITD management teams will be reviewing the results of ITD employee thoughts and using that input to generate activities that will help guide future planning efforts.

**THE COMING WORLD OF TRANSPORTATION  
SYMPOSIUM**

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Doubletree Riverside Hotel	Boise, Idaho	Tuesday, August 22, 2000
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|----------|--|
| 8:00 AM  | Continental Breakfast/Registration   |
| 8:30 AM  | Introductions – Program Moderator:<br>Dick Transtrum, Chief of Administration, Opening Remarks<br>Chuck Winder, Chairman, Idaho Transportation Board<br>Dwight Bower, Director, Idaho Transportation Department          |
| 8:50 AM  | Glen Hiemstra – Futurist.com<br><b>“The Future is Not Something Which Just Happens to You. The Future is Something You Do!”</b>  |
| 10:00 AM | Break  |
| 10:15 AM | John Church – Independent Economic Consultant<br><b>“The Future Composition and Spatial Distribution of Idaho’s Population: How It May Affect the State’s Transportation System”</b>                                     |
| 11:00 AM | Michael Kyte Ph.D., P.E. – National Institute for Advanced Transportation Technology, University of Idaho<br><b>“How New Transportation Technologies Are Likely to Impact Our Field Through the Next 15-20 Years”</b>    |
| 11:45 AM | Lunch  |
| 12:20 PM | Craig Zablocki – Positively Humor  |
| 1:30 PM  | Todd Litmann – Victoria Transport Policy Institute<br><b>“Challenges &amp; Opportunities for Transportation Management”</b><br><br>Loren Sweatt – Associated General Contractors<br><b>“Building Better Communities”</b> |
| 2:30 PM  | John DeVierno, Esq. – Attorney<br><b>“Federal Transportation Policy: Some Perspectives on Trends &amp; Issues”</b>   |
| 3:15 PM  | Break  |
| 3:30 PM  | Tom Larsen – Former Administrator of FHWA<br><b>“Vision For The Future”</b><br><br>Steve Lockwood – Parsons, Brinkerhoff, Quade & Douglas<br><b>“The Changing State DOT”</b>   |
| 4:30 PM  | Wrap up – Glen Hiemstra  |
| 5:00 PM  | Adjourn  |

**IDAHO TRANSPORTATION DEPARTMENT**  
***The Coming World of Transportation***  
**Symposium: August 22, 2000**  
**Questionnaire: Results Summary**

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**BACKGROUND**

On August 22, 2000, the Idaho Transportation Department (ITD) sponsored a Symposium entitled "The Coming World of Transportation." The Symposium was an opportunity for board members, management, employees and others to consider the industry through a snapshot of what the future may bring. Futurists, humorists, subject matter experts and other transportation professionals made presentations to the group. The Symposium agenda is included as Appendix A.

As part of the Symposium, participants were encouraged to reveal their thinking respective to these issues and apply that thinking to ITD planning and other efforts. This document reflects the process and product of that activity.

**OBJECTIVES**

The purpose of this part of the Symposium effort was to:

1. Facilitate a process whereby participants consider how to apply information they have heard to their own experience at ITD;
2. Create a mechanism for obtaining feedback from participants respective to their observations about Symposium presentations; and
3. Develop a summary resource of participants' collective thoughts for use in future planning processes at ITD.

This *Results Summary* is the product of a process that included:

1. Developing a questionnaire that would help meet the objectives listed above;
2. Soliciting participants' input to the questionnaire;
3. Transcribing, sorting and presenting that collection of comments; and
4. Producing a resource for future discussion and planning activities at ITD.

This *Results Summary* describes that process and presents participants' feedback. It does not provide a summary of Symposium presentations. Rather, it focuses exclusively on participants' thoughts and recommendations as an output of reflecting on those presentations.

**QUESTIONNAIRE**

Participants were asked to complete the questionnaire following each presentation. The questions asked participants to identify:

1. What they felt was the most significant information provided;
2. How this information might impact their daily work and how they might use it; and
3. Recommendations for what the ITD might do to address these points in the future.

Two final questions (for answering at the end of the Symposium) asked participants to provide:

1. The two most meaningful recommendations they wanted ITD to consider; and
2. Specific recommendations about the development of ITD's *Strategic Plan*.

The questionnaire packet is included as Appendix B.

## **RESPONSES**

Approximately 200 individuals attended the Symposium. Numbers of responses to the questionnaire differed by presenter. The following table reflects the number of responses:

<b>Questionnaire for Presenter</b>	<b>Number of questionnaires returned</b>
Hiemstra	106
Church	103
Kyte	84
Zablocki	89
Litman	81
Sweatt	83
DeVierno	67
Larson	87
Lockwood	80
<b>Final two questions</b>	74

On average, 85.4 people responded to all the questionnaires. It is assumed, given the movement of people in and out of the Symposium, that this is an approximately 50 percent response.

No response rate target was identified before the Symposium.

Many participants responded more than once to each question. A number of participants responded to questions 1 and 2 following each presentation but not to question number 3.

## **PROCESSING RESPONSES**

Questionnaires were sorted by the nine presentations and two final questions, producing eleven (11) groups of responses in all. Within those groups, all responses went into a matrix.<sup>1</sup>

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<sup>1</sup> Every attempt was made to ensure accuracy of handwritten comments. In some instances, handwriting was not decipherable. Assumptions were sometimes made about specific language and produced accordingly. In other instances, a (?) within the matrix indicates something may not be accurately transcribed.

The matrix is intended to maintain the integrity of each three-part response to a presentation. Therefore, the matrix contains three columns. Each column represents responses to question 1.A., 2.A. and 3.A. respectively. Each row reflects one participant's response to those three questions (see the illustration below).

<i><b>Question 1.A.</b></i>	<i><b>Question 2.A.</b></i>	<i><b>Question 3.A.</b></i>
<i><b>In your opinion, what are the two most significant points delivered in this presentation?</b></i>	<i><b>How will these points affect you and your specific area of responsibility?</b></i>	<i><b>What do you think we as an agency must/can do to address these points in the future?</b></i>
(Participant: Joe) <i>Identifies key points.</i>	(Participant: Joe) <i>Identifies his potential application of key points.</i>	(Participant: Joe) <i>Makes recommendation to ITD for potential application of key points.</i>

Responses to the two final questions consisted of only one part. Those responses are provided across a single row within the matrix.

Further evaluation of the responses focused exclusively on participant input to Question 3.A.: "What do you think we as an agency must/can do to address these points in the future?" These responses—intended to be specific recommendations to ITD—were sorted again. Each was placed into one of a number of broad categories.

Categories, with a description of its content, include:

<b>Category</b>	<b>Types of Comments</b>
<b>Planning</b>	<b>Subcategory 1:</b> <b>Vision, mission, and planning process.</b> This subcategory contains comments related specifically to <ul style="list-style-type: none"> <li>• Vision &amp; mission</li> <li>• ITD's approach or process to develop its vision, mission and strategic plan</li> </ul>
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Category	Types of Comments
	planning, funding purposes • Customer service
Attitude	• Comments about how we approach or think about things
Money	• Funding • Revenues • Expenditures • Allocations
Other	• Comments that did not fall into the above categories • Comments that did not include a response to question #3

While overlap among responses exists across categories, recommendations were categorized according to the main area of emphasis within the response statement.

The sorting allows for two different types of reports:

1. Matrix 1—Recommendations by presentation (Appendix C)  
Matrix 1 lists participants' responses to specific presentations. For example, all of the responses to Mr. Hiemstra's presentation are collected within pages 7-15 of this matrix. Within those pages, responses to Mr. Hiemstra's presentation are further sorted according to category of response for the readers' convenience.
2. Matrix 2—Recommendations by category (Appendix D)  
Matrix 2 presents participants' responses by category. For example, all responses attributed to the "Organization, management and staff" category are collected within pages 27-36 of this matrix. Within those pages, responses are further sorted according to presentation for the readers' convenience. Because comments were categorized according to the recommendation provided in question 3.A., responses that did not include a recommendation in 3.A. are not included in this matrix.

This sorting provides two approaches for discussion. Further sub-grouping of responses is possible within a number of the categories and presentations to facilitate focused discussion among ITD personnel.

## **RESULTS**

All recommendations deserve review in order to synthesize the range of comments. This *Results Summary* provides an initial overview of participants' comments as seen by an outside observer. By category, broader comments included:

### Planning Considerations

1. Vision, Mission and Planning Processes

Many participants recommended that ITD take a new look at its vision and mission statement to ensure it incorporates futurist trends and characteristics. Some said the

existing vision and mission, and the existing process to complete the *Strategic Plan*, are already good for these purposes.

There were a number of recommendations respective to the planning process. Some thought the process works fine and that it should be kept simple. Others suggested that the process include a more collaborative effort among employees and reflect more forecasting of trends in a variety of areas. Suggestions also included developing a number of solutions, options and priorities to ensure a more flexible organization positioned to accommodate change.

## 2. Factors

Participants raised a number of questions and recommendations to consider during the planning process. Among them were recommendations to:

- ❑ Consider demographics and population changes, including the increasing number of youth and senior drivers;
- ❑ Look at a range of alternative transportation modes, ensuring Idahoans have the right to choose individual modes as well. Begin, particularly in the urban areas, to provide an increasing focus on multi-modal and public transit opportunities;
- ❑ Evaluate the role of District 3 (more money, more staff, divided into two, etc.) as the state's primary urban area. Some cautioned that even with increasing urban needs, ITD still will have a demand for rural facilities in this District and throughout the state;
- ❑ Reshape the organization to better accommodate maintenance roles, rather than highway construction responsibilities; and
- ❑ Pursue corridor preservation—now.

## Technology

Participants emphasized technology from two perspectives.

- ❑ Many suggested that technology is a way to operate the department more effectively. Even within that recommendation, some expressed frustration that some technologic initiatives (like ORACLE) are not working. The general recommendation is to continue to pursue opportunities with technology but to do so in an efficient and meaningful way.
- ❑ Participants consider technology as the opportunity to provide better, faster and safer modes of transportation throughout the state—whether that is highways or alternative modes. Some cautioned about the expense associated with pursuing and providing this technological support; others cautioned that ITD must investigate technologies in a collaborative fashion to ensure it meets customer needs. However, there was clear recognition that technologies offer opportunities to address transportation demands in the future and that ITD must pursue them.

The need for ITD employees to have, understand, and apply technology in an efficient manner was a high participant priority. One suggested that a technology vision statement for the department might be a good idea.

#### Organization, management and staff

Participants questioned whether ITD had the right skill mix. A number of participants recommended that the department look at that. Within that context, participants repeatedly recommended increased and ongoing training—particularly to learn about and use new and ever-evolving technologies. Other comments included:

- ❑ Questioning whether the ITD workforce should evolve from a primarily engineering-oriented resource to one with a broader set of skill sets;
- ❑ Questioning whether there is a way to use consultants more efficiently, enabling the department to operate more as an oversight organization, or refocusing staff effort to do more of the project-specific work;
- ❑ Developing project management skills from a cradle-to-grave perspective or maintaining the status quo;
- ❑ Finding efficiencies in the workplace; and
- ❑ Evaluating ITD's role as a construction vs. a maintenance-oriented service agency.

#### Outside involvement and information

Many participants recommended developing better relationships with the public, Municipal Planning Organizations and local governments. This activity will help ITD to:

- ❑ Understand, assess and plan for local needs;
- ❑ Understand and consider demographic and other information that influences transportation facilities;
- ❑ Conduct collaborative-based problem solving;
- ❑ Provide the most efficient and meaningful transportation services; and
- ❑ Solicit support from the public and local and state elected officials.

Participants' often repeated the recommendation to solicit customer feedback to gauge ITD's success and calibrate its program.

While some stated ITD was doing a good job with the legislature and congressional staff, many expressed concern that given the Presidential election this year and Idaho's number of representatives on Capitol Hill, funding levels were likely to decrease in the immediate future. Educating, lobbying and positioning the state to obtain adequate funding to meet its backlog and plan for the future were points of emphasis.

#### Attitude

Comments about attitude encouraged flexibility, initiative and innovation. Several recommendations were "be prepared for change" and be "proactive." Having fun, taking

risks and allowing others to make mistakes as part of the work environment were among those recommendations.

The luncheon presentation by Craig Zablocki, “Lighten Up and Laugh for the Health of It” was tremendously popular. Most responses to the Zablocki questionnaire suggested that ITD integrate more fun to the workplace. Participants commended the organizing committee for bringing this presenter to the conference, and many recommended that ITD find a way to bring humor to conferences, to staff meetings and to the employees in some fashion. Participants often committed to evaluating their own performance in the work place and to try to bring more humor or at least light-heartedness to their environment—while taking the work they do seriously.

### Money

Many are concerned about funding and encouraged ITD to be proactive and be developing relationships to help ensure future sources of revenue. Others suggested seeking innovative ways to generate revenues and to consider those opportunities as ITD does its planning. Some suggested raises. Others stated that there could not be an even distribution of funds across districts given demographic realities.

### Other

While this summary represents the input provided in each of these categories, the matrices provide more specifics. Indeed, ITD personnel will be able to specifically highlight other key issues through a review of the matrices.

Appendix C, pages 2-4, provides specific input to the final question “What would you recommend that we as a department address first?” Designed to enable individual participants to prioritize their own recommendations, responses to this question provides a collective summary of participants' recommendations.

Appendix C Pages 5-6, lists the input to “What additions, deletions or changes should we be considering for our Department *Strategic Plan*?” Responses offer specific input to the development of this document.

Readers are encouraged to review pages 2-6 of Appendix C to obtain a first-hand perspective of participants' summary comments.

## **CONSIDERATIONS**

This process was designed to solicit from participants their best thinking and recommendations based on Symposium information and exposure to subject matter experts. In reviewing this input, readers are encouraged to consider the following context:

1. In many instances, participants seriously considered information they heard and built their recommendations and suggestions around that thought. A review of the series of three questions often reflects the participants' thought process.

2. In some instances, it is possible that participants made as recommendations the same points delivered in the presentation. It may not be known if these recommendations are merely a repeat of what a participant heard, or if the participant genuinely thought about and offered it as a serious recommendation.
3. Time to prepare responses was limited. However, with one notable exception, those who provided comments at the Symposium did so with the same amount of detail as those who sent in their responses following the Symposium.
4. The set of recommendations provides discussion, consideration and decision-making opportunities for ITD. It is important to remember, however, that recommendations issuing from this Symposium are grounded in information as presented at the Symposium only. ITD will have numerous additional issues to consider in its planning and decision-making process.
5. In some instances, with the Litman/Sweatt presentations and feedback as a specific example, responses come not in the form of recommendations per se, but in the form of a debate on issues that may be well worth pursuing within ITD.
6. It is anticipated, as ITD continues its study and discussion of these recommendations, that sub-issues will emerge that may be as significant to ITD as the issues themselves. Further discussion and analysis will identify those sub-issues.

## **RECOMMENDATIONS FOR FURTHER ACTION**

To further synthesize and make use of these results, the following actions are proposed:

1. Send to all participants the “Results” section of the *Results Summary* document and pages 2-6 of Appendix C for their review and consideration, making the entire document available to those who request it. There is, within the categories, opportunities to conduct further sorting and discussion that may be of use on a division, district or programmatic level. Organizational leaders and managers can review the results use this input respective to their roles in the organization.
2. Implement a process among ITD’s executive team to synthesize results and prioritize impetus areas. ITD will benefit by further discussion and analysis of each category and by developing an understanding of why the recommendations are important. ITD will also identify sub-issues that it may find are as important to address as the original issues. The process enables ITD to discuss and prioritize this information, and then develop implementable actions or identify elements that warrant additional consideration in planning processes.
3. Present the results and coordinate the follow-up activities with the ITD Board.
4. Communicate follow-up activities and results with ITD personnel. Consider how to generate a synergistic process that fosters an innovative and futuristic culture among employees in terms of their individual contribution to ITD and by way of encouraging their contribution to the agency’s planning process.

## **CONCLUSION**

This *Results Summary* is a starting point. It is a tool intended to help ITD plan for change and continue to provide quality service to its Idaho customers far into the future.

ITD management teams will be reviewing the results of ITD employee thought and using their input to generate activities that will help guide future planning efforts.

## *What would you recommend that we as a department address first?*

<b>PLANNING CONSIDERATIONS</b>
<b>VISION, MISSION, PLANNING PROCESS</b>
Revisit mission/vision to reflect emphasis on technology and project delivery (and not just highway projects); consider reorganization if appropriate.
A formulation of a coherent, authority plan for its own future, addressing relevant, futuristic implications which will drive future business needs.
Development of a true business/strategic plan that includes common language and definitions and which are spoken up and down the organization.
Decide what ITD's preferred future looks like and work toward making it happen.
Improve our long-range transportation plan. Better definition of what we want highways to look like; take a good look at how our various modes relate.
We need to develop a clear vision for the future and develop our long-range and strategic plans to take us in that direction.
Mission statement proves our impetus. What we need is direction or more focused programming.
There is no single vision of the future. Our agency's technology is part of future. It needs to be bounded with economic, political and social considerations. So, add technology, measure the needs of the public and meet them.
Reevaluate what our current department mission is.
<b>FACTORS</b>
Plan more efficiently when deciding which projects to do. Take into account all different pieces of the puzzle before starting project. Don't forget the project's ramifications to the community and try to ensure that the project and community co-exist.
I would start a planning process for future modes of transportation. There are so many things to consider like what we are trying to accomplish, who will benefit etc. We should also check into funding available to construct/add new modes of transportation.
Increase of population in southwest counties. How will the department handle traffic, services, technology to meet the demands?
Plan for customer satisfaction.
ITD should concentrate on planning and funding the fastest growing areas of Idaho. Treasure Valley and Coeur d'Alene area.
More planning with emphasis on customer needs and demographics.
Transition from a "development" organization to an "operations" AND development organization. Funds, resources, focus should be evaluated to do this.
Enhance planning to help make the right decisions.
Recognize that growth in Ada and Canyon Counties is going to continue to be rapid and will outgrow other areas of the state (but also will impact nearby counties). Plan, budget, construct the roads, bridges and mass transportation that will meet our estimated needs in 25+ years while note losing sight of other forces (e.g. technology, lifestyles).
Anticipate growth and evaluate what our transportation system will be like if we DON'T make improvements.
Recognize or restructure to more efficiently respond to customer service needs (keeping in mind we are our own customers is some/many cases.) Identify ways to encourage and promote proactive problem solving. To find ways to better market ourselves to the public and our business partners. To create an EXECUTIVE AND MIDMANAGEMENT structure that can TRULY LEAD. A test of that leadership would be to look behind them and see who's following & more importantly, who's prepared to pick up where they leave off.
The department needs to focus on how we need to change to meet the demands of our customers.
Understanding reasonable future needs.
Review responses; If we don't change where will we be in 10 years; what can we do to make our organization ready for 10 years worth of changes; what don't we need to do? what are we doing right?; what has little value?
Create emphasis on systems of performance measures in support of strategic planning with clear strategy for priority of major urban improvement addressing capacity, congestion.
How we are going to manage and use our existing infrastructure/no one has what we have and travel is essential. People and goods need to get many places. Waiting for things to settle down—it won't happen.
Develop progressive "community-driven" transportation plans.
Tackle capacity issues, revise environmental laws if necessary to do so!
Right-of-Way corridor preservation.
Reaffirm our commitment to operations management of our facilities. This should include a rural needs plan as well as a strong urban development strategy.
We need to deliver our projects more efficiently and timely. To do this, it's important for us to streamline our environmental permitting process.
Rural road safety issue; streamlining processes to optimize doing more with less. Help personnel cope with the rapidly change environment we are in; continue ITS and congestion management emphasis.
More freeway lanes around Boise, Nampa, Caldwell area; HOW lanes; No/ So 4-lane or more highway; recognize and meet demands of customers; keep rural highways maintained.
Planning of public transit—alternative to vehicle use, i.e., hybrid rails system.
<b>TECHNOLOGY</b>
Technology training.

Concentrate on using technology to keep capacity/facility/infrastructure needs manageable.
Invest in technology that improves communication ability.
Get a handle on technology that is currently in place and make it work! (i.e. ORACLE). Information is not really available with our current system. This limits the effectiveness of our management tools.
Allow more flexible development of newer technologies.
Create a technology mission statement with clear goals to guide department employees.
Technology—both in house; fix ORACLE, and identify ways to deliver a better system—not just better roads.
Prioritize technology training and technology prioritization.
Get a good grip on technology. Continue to invest and train. Technology, if managed carefully, can increase efficiency. Always ask the users what they think. Our IFMS is a good example of NOT listening (or asking).
Manage technology, don't let it manage us. Need to keep current.
Complete our technology programs that are currently underway. Make sure they work well (efficiently) and support The department. We have come so far in the last 7—8 years and our programs have tremendous potential, and obviously, from the information presented, our technological advances are right on target for the transportation management system changes that are underway.
Embrace new technology. Train for new technology.
Technology and implementation; Information Dissemination and Data duplication elimination; clear planning on project delivery.
Make the current computer network robust and move legacy data only after revalidation of need and usefulness.
Turn informational system programs into internal service programs.
Stay as competitive as possible with IS systems and staffing or move to outsourcing the work to stay up with the cutting edge developments that will form the basis for “smart technologies” and highway development in the future (even for our rural state).
Integrating technologies.
Technology. Solve the IFMS problems.
<b>ORGANIZATION, MANAGEMENT &amp; STAFF</b>
Organizational structure—with an increasing emphasis on customer service, consultation, coordination and efficiency. Do we have the folks with the best backgrounds in positions of authority/decision makers or should we begin to blend staff with “people skills” and better business backgrounds into the mix to help us blend the best of both worlds?
Identify skills sets needed for the future and begin to identify and develop employees who will really contribute to achieving the vision. Without the right people with the right skills, there is little chance to succeed.
The Board should retain outside unbiased experts as advisors for challenging projects involving social, environmental and economic impact potential.
We need to look at our organization and ensure that change is part of culture and positions reflect expectations.
Ensure adequate staffing so all can participate in strategic planning, HMS and other technical implementation, training opportunities, and continue providing services to external and internal customers.
Ensure necessary training is available on regular schedule to allow attendance of those who need it.
Recruiting, training, retaining and promoting quality managers for ITD. Current practices are not getting the job done. We function no better than the quality of the employees we have.
Update our technology and prepare our employees through training for the future and how their jobs may change.
Develop Project Management opportunity (only project development, not construction, not cradle to grave).
Change organizational culture to allow and reward innovative results oriented service delivery programs based on employee and customer desires. Allow employees to fail.
Change management in all areas of the business.
Take an overall look at where we are and what we have. What are our current initiatives? How we use engineers in department and project management.
In as much as technology has moved from 12 <sup>th</sup> to 1 <sup>st</sup> in emphases for successful DOTS, encourage and fund training for the technical staff, even if it involves out-of-state travel.
Uniformity and fiscal and program responsibility.
<b>OUTSIDE INVOLVEMENT &amp; INFORMATION</b>
Our relationship with local governments and the public—the customers will help to drive where we are going, but we need to really assess what those needs are.
How to work with the locals to get input on “what they want to buy,” how to collaborate for more efficiencies, be willing to look at more efficient processes and laugh.
More public involvement in what the future direction of our efforts should go.
Figure out what Idahoans want, or how they perceive what Idaho needs.
Keeping up with the “outside” changes, demographics, technology.
Identify the current needs of a willing customer.
Recognize planning and working with locals are priority to design and define engineering.
Lobby for an adequate amount of federal funding and the freedom to use it as needed, whenever and wherever we can.

<b>ATTITUDE</b>
How we see ourselves. Specifically, how we integrate all the modes, divisions, and districts to truly work as one entity supporting each other's needs and celebrating each other's accomplishments.
As the director stated in his opening remarks, "teamwork is an important asset," and the key factors for a creative organization are "how did WE create this situation" and "How can WE create what we want." We need to encourage teamwork and a collaborative approach to our work and avoid the "ultimate control," don't bother me with the facts-type managers.
Assist management and minimize annualized costs of investments.
Management.
Encourage, facilitate and support thinking outside of box. Rather than act in a reactive mode, let us be proactive. Often I hear the statement "we know there is a problem in that area, but we won't take steps to change it unless someone from the outside complains." Let's start fixing things before they become a problem. Let's anticipate and correct where necessary rather than use the "squeaky wheel gets oiled," perspective to solve problems.
Back up and look at ourselves. Don't take ourselves so serious. Truly create fun places to work where we can use our creativity to excel at our jobs. Laugh with us not at us. Don't put us in a corner when we are brave enough to fail.
Planning for the future; be agile.
Encouraging innovation.
Allow employees to take risk without fear of failure.
Don't micro-manage.
Adjust our mind set to be open to change and innovation.
Be ready and willing to operate in a different environmental to meet changing needs with all tools available.
How we do business.
1. Old guard—accept the "real" project development requirements and time frames and do not try to back this; 2 new guard – plan the future with the tools available and development will fall in place; 3: accept change and the pace of it at all levels of ITD.
Prepare for major changes.
<b>MONEY</b>
Reauthorization impacts: develop strategies and priorities for less funding, more.
Keep costs under control as we learn new solutions.
<b>OTHER</b>
Don't need to read presenters resumes as printed.

## ***What additions, deletions or changes should we be considering for our Department Strategic Plan?***

<b>PLANNING CONSIDERATIONS</b>
<b>VISION, MISSION, PLANNING PROCESS</b>
Start over! Base it on where we really need to head based on sound analysis of our values and goals. The process for constructing it really needs to change. Having Planning do the update each year does not facilitate a cohesive and collaborative product.
No additions or deletions.
Our direction is good. Make the process for change more responsive.
Keep Director Bower in place! His vision and leadership has been most productive for ITD and the State of Idaho! Thanks for the great and informative symposium.
Relook at the department mission statement by the executive management team. We need to have broad goal statements at the department level that will tie to the Governor's plan. Get rid of the plan's division-level organization and allow each division to support the department goals through performance measures and strategies. Work with DFM on the current strategic planning code. Needs some refinement now that it has been in effect for ~50 years. The agencies should be involved in this code refinement.
I'm not knowledgeable about the contents of the current Strategic Plan.
<b>FACTORS</b>
We need to better define our planning effort. Need to emphasize interconnections between modes. We need to revisit current measures, make sure they make sense and make sure they are obtainable.
Plans as to the aging population--all modes of transportation.
Emphasis on expanding services while maintaining current levels of service.
We need leadership from the Board, the Governor and management to develop the organization's strategic plan. To do this a clear, defined set of programs and priorities need to be set by the Board and Management.
I would start a planning process for future modes of transportation. There are so many things to consider like what we are trying to accomplish, who will benefit etc. We should also check into funding available to construct/add new modes of transportation.
More emphasis on inter-modality.
We have a good plan. Let's not make it a report card. This discourages creative, innovative thinking. Make sure we are planning for growth and building now to handle the increase. <i>Thanks for the opportunity to attend. Thanks for the healthy dose of humor.</i>
Technology emphasis; customer expectations; program delivery; measurement.
Increased emphasis on measurable performance goals, supported by District-level planning in both construction and operations.
Planning for growth in urban areas but keeping in mind the maintenance of rural routes.
Address the urban vs. rural issues; address the urban sprawl issue with attention to people's desire to maintain a "rural" lifestyle close to an urbanized area; ITS & congestion management
We need a clear depiction of our ability to accomplish/funding major rural vs. urban improvements and yet maintain infrastructure basic needs (surface/br/safety, etc.)
<b>TECHNOLOGY</b>
Innovative uses of technology as it is developed.
Integration of technology into our business.
Keep it simple! Concentrate on information systems improvement.
Technology should be a bigger part of our plan to manage congestion and safety.
Total integration of our management systems (PRMS, EMS, MONS, Program, IFMS, etc....)
Maybe a stronger emphasis in our plan re technology.
Keep pushing the technology envelope.
Additional IS capabilities.
It appears that we need to stress incorporation of technology and the training required to do so.
Be proactive in adopting new technology.
TSM?
<b>ORGANIZATION, MANAGEMENT &amp; STAFF</b>
Revisit. Get many more people involved now while this Symposium is fresh. Continue to revisit about twice per year with all ITD managers and supervisors involved. Charge involved persons to continue learning and awareness of changes, innovative ideas/attempts.
More involvement at ALL levels in the department.
Keep Glen Hiemstra on contract to help improve the play but to keep us from falling back into our own council and just doing an improved job of what we are not doing. He could guide us to a truly new vision for our Strategic Plan.
More focus on professional development (staying abreast of new technologies). Lengthen the focus of sections of the plan to 15 years.

Do what it takes to retrain and pay workers competitive wages.
The need for project management and (?) Management should be supported by the Strategic Plan.
Becoming more of a “learning” organization.
Technology changes, keeping up with future funding decreases.
<b>OUTSIDE INVOLVEMENT &amp; INFORMATION</b>
Continue to focus on customer-based outcomes.
User satisfaction surveys; general ongoing surveys of how we are doing, directed at public and local governments; creation of points.
Do customer surveys and respond to them.
More emphasis on communication. What are the demands/needs/expectations of our customers? We need to hear from them and keep them informed of what we’re doing and why we’re doing it (of course we need to get their input before we make major decisions).
Consider mechanism to consistently measure customer satisfaction.
Working with state legislature to decrease the gap between private and public sector employment to assist in retaining qualified personnel.
Ask why? And why now? Why do so many states do the same thing on their own? We can and should learn from each other.
Researching feasibility of alternative modes of transportation in heavy urbanized areas, as well as improving and creating new roads to alleviate traffic congestion and make travel easier with increasing population. Keeping in mind that not only is population increasing but miles driven/trips taken also increasing along with the population aging.
Look at other agencies. Strategic plans that may not allow us to complete ours. Maybe we have to work together to develop a “new” plan.
1. Require/mandate integrating local planning, land-use and comprehensive plans into department programs, procedures and policies; 2. Mandate development of District comprehensive transportation plans; 3. Mandate coordination with local jurisdictions; 4. Change focus from “engineering” to “planning.”
Good pavement (rocks and asphalt) are not enough to consider especially in the urban centers; local agency collaboration must occur; all system transportation means must be evaluated and implemented as justified—collaboration with MPO and County transportation plans needed.
Local government relations.
<b>ATTITUDE</b>
Flexibility!
Be flexible (as much as possible) in adapting to change and continually update the plan. Be prepared to abandon some and incorporate some new.
Be open, honest and supportive of needed changes, even if it’s not what we have always done.
<b>MONEY</b>
Increased emphasis on maximizing investment strategies which will result in minimal annualized costs or maximum effectiveness of customer mandates at a minimum annualized cost.
<b>OTHER</b>
How can we move a project from concept to construction in 2 years? The public is demanding that projects are done in a timely manner (concept to construction in 2 years).
Not sure about specifics today—would like to absorb this good information and review our strategic plan (timely since we are meeting on the Strategic Plan tomorrow in DOH).
Not so much for the strategic plan, but, we need to truly decentralize the highway division. Remove restrictions to programming, fund transfers and operating budgets. Give us a true budget, true control and expect outcomes that we are accountable for.



## John Church

John Church is an independent economic consultant. Prior to starting his own consulting practice in August, 1997, he was the Corporate Economist and a member of the Strategic Planning Department of Idaho Power Company. He received B.S. degrees from the University of Washington and Boise State University, and a M.S. degree from the University of Idaho.

Mr. Church's annual economic and demographic forecasts of state of Idaho and each of the state's counties are utilized by many agencies, firms, and organizations throughout Idaho as well as others in the U.S. with interests in Idaho.

He has also participated in: the forecasting of future revenues, analysis of product markets, the analysis, review and negotiation of long-term fuel supply contracts, long-term electricity supply planning, the analysis of business acquisition opportunities and valuation, and the development of cost/benefit analysis methodologies.

He is also a special lecturer in economics at Boise State University, and a member of the Western Blue Chip Forecast Panel, a past member of the Economic Forecast Advisory Committee of the Pacific Northwest Power Planning Council, the Edison Electric Institute's Strategic Planning - Economics Committee, the Economic Advisory Committee of the Northwest Policy Center at the University of Washington, and the "Boise Visions" Boise city comprehensive planning process.

## John Church Speech Outline:

### The Future Composition and Spatial Distribution of Idaho's Population: How It May Affect the State's Transportation System

Along with Idaho's economic growth have come changes in its demographic composition. While the average age of the population in the nation is increasing with the aging of the baby boom, the characteristics of the in-migrants to Idaho have significantly slowed this phenomenon here. Furthermore, the spatial distribution of this population growth, in Idaho and the nation, has not been uniform. This has caused some pundits in the economics profession to speculate that agglomeration economies may be back in vogue.

These population and demographic changes have already had significant impacts on the state's transportation system. The future demographic makeup of the population, its spatial distribution, and its political representation will cause further changes the state's transportation network.

We'll examine the characteristics of the state's migrating population, the spatial distribution, or agglomeration, of Idaho's population growth in the past two decades as well as in the future. Lastly, the question of "What will Idaho's population in 2025 look like?", will be answered.

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**JOHN A. DeVIERNO**

Mr. DeVierno specializes in representing companies, associations, and state governments before the Federal government. His experience includes practice before the Congress, agencies, and Federal courts, making presentations to interest groups, and providing strategic counseling to assist clients in formulating and implementing approaches to Federal issues.

He served in the Office of General Counsel at the United States Department of Transportation from 1977 to 1981 and has been in private law practice in Washington, D.C. since 1981. His practice includes representations in the areas of transportation and communications as well as in other areas. The work includes matters concerning economic, safety, and environmental regulation, distribution of Federal funds, selected tax matters, and the legislative and regulatory process.

Mr. DeVierno holds a Juris Doctor degree, *magna cum laude*, from The George Washington University (1977), where he was elected to the Order of the Coif. He holds a Bachelor of Arts degree, *cum laude* with distinction in government, from Dartmouth College (1973). He is admitted to the practice of law in the District of Columbia and is currently a partner in the firm of Oldaker & Harris, LLP.

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John DeVierno Speech Topic:

“Federal Transportation Policy: Some Perspectives on Trends & Issues”

Loren Sweatt is the Director of Congressional Relations for Procurement and Environment with the Associated General Contractors of America. Ms. Sweatt's Congressional work involves working on legislation affecting the federal procurement process, all environmental issues, and issues affecting small business. In her position she is also the staff associate to AGC's Environmental Resources Committee and the recently created Environmental Action Foundation. She served on the editorial committee of the recently published "*Building Better Communities: A Toolkit for Quality Growth*."

Ms. Sweatt received a BA in Political Science from Texas Christian University and a Masters in Business Administration from Marymount University.

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Building Better Communities  
Loren Sweatt  
Associated General Contractors

Public Perception

- 70% of American public identify themselves as environmentalists
- 68% favor local control of land-use policies
- 75% believe government should plan and manage growth
- 2% believe government should pass laws to stop growth
- 92% of public drive to work

Neotraditionalism

- Movement advocating “walking communities”
- Encouraging infill development
- Emphasis on transit
  - Light rail
  - Busses
- Suburbs and other development disliked

Case Studies

- Neotraditional communities
  - Celebration, FL
  - Seaside, FL
  - Reston, VA
  - Columbia, MD

**Building Healthy Communities: A Toolkit for Quality Growth**

- Components
  - Vision Statement
  - Factsheets
  - Index Cards
  - Case Studies
  - Media Involvement
  - Resources

Vision Statement

- Choice
- Economic development
- Opportunity
- Infrastructure investments=Safety
- Environmental improvement = economic development

#### Fact Sheets

- Overview of six issues
  - Critique of Smart Growth
  - Traffic Congestion
  - Air Quality
  - Transit
  - The Automobile
  - Traffic Calming

#### Key Facts

- People choose where they live based on safe streets and good schools.
- More people are commuting from one suburb to another.
- The fastest way from welfare to work is in a car.
- Changing demographics placing more demand for a variety of lifestyle choices.

#### Case Studies

- Portland, Oregon
- Los Angeles, California
- Washington, DC
- European Model

#### Ballot Initiatives

Sierra Club Sponsored Statewide Ballot Initiative

Colorado Ballot Initiative

California Local Initiative

#### Resources

- Internet
- Books
- Magazines
- News outlets

## Conclusions

- Building Better Communities is just the beginning.

### **Todd Litman** ***Victoria Transport Policy Institute***

Todd Litman is director of the Victoria Transport Policy Institute, an organization dedicated to developing innovative tools for transportation decision making. He has worked on many studies which evaluate the full costs and benefits of alternative transportation policies and investments. He has also developed transportation demand management and parking management strategies and programs. His research has been used worldwide for transportation planning and policy analysis.

He has written numerous papers, articles and reports concerning transportation cost and benefit analysis. These include *Transportation Cost Analysis; Techniques, Estimates and Implications*, *Pavement Busters Handbook*, *Parking Requirement Impacts on Housing Affordability*, *Guide to Calculating Transportation Demand Management Benefits*, *Quantifying Bicycling Benefits for Achieving TDM Goals*, and studies of the full costs of transportation in Santiago, Chile, Edmonton, Alberta, and Vancouver, British Columbia. With K.T. Analytics he also co-authored the study, *Review of Cost of Driving Studies* for the Metropolitan Washington Council of Governments. His paper *Transportation Cost Analysis; Techniques, Estimates and Implications* received both the Cost Analysis Research and Outstanding Research awards at the Transportation Research Forum 38th Annual Forum.

Todd is an Affiliate of the Institute of Transportation Engineers, and has been appointed to three Transportation Research Board committees: Economics (A1C01) and Social and Economic Factors in Transportation (A1C06), and the new subcommittee on Sustainable Transportation (A1C01 [2]). He was recently awarded a research fellowship by the Lincoln Institute for Land Policy. He also teaches a course in transportation and land use planning at the University of Victoria.

In addition to technical writing, Todd has co-authored two travel books (*Washington; Off the Beaten Path* and *Best Bike Rides in the Pacific Northwest*) and a weekly bicycling column in the Times Colonist with his wife, Suzanne Kort. They reside in Victoria, British Columbia.

**Urbanization & Growth:**  
Challenges and Opportunities for Transportation Management

By **Todd Litman**  
***Victoria Transport Policy Institute***

Presented at ***The Coming World of Transportation***  
**22 August 2000, Boise, ID**

Modern transportation activities present many challenges (problems), including high facility costs, congestion, negative environmental impacts, traffic crashes, high consumer costs, and inferior travel choices for non-drivers. These are all significant problems to at least some Idaho residents. It is therefore important to develop a comprehensive approach to transportation planning that takes into account multiple concerns.

Conventional transportation planning tends to focus on just one or two problems at a time, often ignoring indirect impacts and problems. As a result, solutions are sometimes implemented that solve one problem but exacerbate others, and strategies that provide multiple but modest benefits tend to be undervalued.

Transportation Demand Management (TDM) includes more than three-dozen strategies to encourage more efficient transportation activity. This provides multiple benefits. Although the benefits of most TDM strategies appear modest, their impacts are cumulative and synergetic. A package of TDM strategies is often the most cost effective solution to transportation problems, when all costs and benefits are considered.

We have identified more than a dozen TDM strategies that appear to be particularly suitable for implementation. They are justified for their economic benefits but also achieve equity and environmental objectives. These are called Win-Win Transportation Solutions.

Win-Win Solutions are technically feasible and cost effective. However, they often face institutional and political barriers. Implementing them to the degree that is economically justified requires innovative management practices and changing the way that we solve transportation problems.

The *Online TDM Encyclopedia* provides detailed information on each strategy and resources for TDM planning. It is available for free at the VTPI website. This website has information on TDM planning and evaluation, and Win-Win Solutions.

Michael Kyte

Here is a brief biography:

I have served as director of the University of Idaho's National Institute for Advanced Transportation Technology for the past six years. I also am Professor of Civil Engineering at the University of Idaho, and have been a member of the university faculty since 1986. Previously, I worked as a transportation engineering consultant for six years and as service planning manager for Portland's transit system for eight years. I am a member of the Transportation Research Board's Committee on Highway Capacity and Quality of Service and am author of the chapter on unsignalized intersections for the last three versions of the Highway Capacity Manual, including the new 2000 version. My areas of work, in addition to directing our transportation research institute, include traffic operations, traffic signal systems including real time interfaces between simulation models and traffic controllers, video based traffic detection, and internet-based training.

I don't have an outline of my presentation yet. But I plan to cover the following topics:

1. Technology trends for both travelers and for DOT employees
2. Technology integration: how do we do it?
3. Training for the new technology

Steve Lockwood is the Sr. Vice President of Parsons, Brinkerhoff, Quade and Douglas (PBQ&D). He was the Transportation Policy Advisor to FHWA during the Bush administration; lectures extensively across the US on transportation issues; is active with TRB and AASHTO at the national level.

## Steve Lockwood speech outline

### THE CHANGING STATE DOT

#### Introduction

- ? State Departments of transportation are evolving as executive management responds to an array of driving forces -- transportation, financial, regulatory, policy technological, etc. Over the last decade since ISTEA, significant changes have occurred in the type, mix and amount of services and facilities delivered.
- ? Less well understood but equally dramatic is the ongoing reshaping of State DOTs as *institutions* – through deliberate strategic modifications in organization, workforce, roles and relationships, process, and finance, that have been a principal preoccupation of many senior managers. In each of these areas there have been significant innovations and lessons learned that are part of the development of the “21<sup>st</sup> Century state DOT.”

#### Driving Forces

- ? The Range and Variation of Forces-- Most of the most important driving forces are simply part of the socio-economic and governmental setting. Some are national in scale or federal in scope while others are regional or state-specific. These forces include:
  - 4. ? Economic and political trends, such as global competition and the push for productivity, new forms of partnerships, changing demographics, demand for increased accountability
- ? Environmental factors, reflected in congestion and sprawl and increased environmental values,
  - ? Technology innovations, especially the convergence of new information-based technologies
  - ? Programmatic changes, including enhanced flexibility and new programs in the federal aid program, substantial increases in funding, additional congressional earmarking, new asset management focus, etc.
  - ? Human resources challenges such as the competitive job market and the difficulty in recruiting and retaining staff with the appropriate skills and experience
- ? Combined Effect of Driving Forces - Together these influences often increased responsibilities (program size and complexity) and at the same time increased burdens (reduced staff levels, increased regulatory constraints).

#### State DOT Responses to Driving Forces

- ? Basic Dimensions of Change – Change is a new constant of the state DOT environment. Important evolutions are taking place in at least five key areas:
1. basic mission mix and priorities
  - 2. roles and relationships
  - 3. workforce and organization
  5. new processes and project delivery methods
  6. Innovative Finance
- ? Change Management and the State DOT Agenda -- State DOTs today are evolving away from single purpose entities with a fixed program towards flexible organizations designed to respond to ever-changing missions, with ever increasing efficiency through a shifting coalition of partners and stakeholders. Key changes with pioneering examples can be observed around the country including:
- ? The Adoption of Strategic Approaches - The number and pace of changes led many member departments to adopt formal strategic management approaches. -. Many of these approaches have been based on evolving private sector practice, but were adapted to the special circumstances of the state.
- ? Strategic Priorities and Performance Orientation – Shifting goals and increased accountability called for a sharpened customer focus and a formalized set of priorities and their use as a guide to align and coordinate other strategic activities. Clarification of organizational values, performance measurement and customer feedback has helped to set a strategic framework for rationalizing programs and services.
- ? New Intergovernmental Roles and Relationships – The need for increased efficiency and customer responsiveness have led to closer coordination and cooperation with related jurisdictions and agencies -- both vertically and horizontally -- in planning and in program delivery. New cooperative entities-- statewide, regional and multi-state -- have been forged, both real and virtual.
- ? Reorganization and Workforce Retooling – Reductions in force and the need for improved service deliver have led to substantial decentralization of program delivery while consolidating support functions. At the same time, program proliferation and new technology has required the need to focus on recruiting, retaining staff and new training for core capabilities.
- ? Process and Program Delivery Improvements – Starting with quality programs, member departments have used ever-more formal methods to streamline internal processes. Some of these approaches have introduced quantitative measurement of efficiency and benchmarking. At the same time, there has been a shift of more production and service delivery burdens to the private sector through a variety of innovative contracting methods.

- ? Innovative Finance – Despite funding increases, many states have searched for ways to increase the rate of program delivery. Leveraging or supplementing existing revenues through with new sources such as tolls and impact fees have been evident. Accessing capital markets through debt finance has also increased together with new institutional experiments such as state revolving loan funds and privatization.


### **The Twenty-First Century State DOT**

- ? Precedents in Other Sectors – Public service and related infrastructure institutions in other sectors (such as power, telecommunications, municipal water, etc) – impacted by deregulation, new technology and aggressive customers -- appear to be tending towards enterprise-style organization and management – especially for project delivery. Some of these features represent current trends visible in state DOTs as well.
- ? Basic Vectors of Change -- The evolving State DOT will vary by state related to size of state, urban vs. rural, extent of state ownership, principal modes, major features of the economy, etc. They may look less and less alike – even from a distance. Nonetheless there may also be certain common features, based on the trends observable today. These suggest the potential of a “new model” state DOT
- ? The Twenty First Century State DOT
1. Smaller organizations which maintain the responsibility for policy (priorities, funding, quality) with many project and service *production* functions dispersed via devolution to lower levels of government and outsourced to private entities as determined by benchmarking and managed competition
  2. Decentralized departmental units organized based on fluid task-oriented teams and vertical cradle-to-grave project management for closer customer contact and increased efficiency, supported by enterprise information and quality control systems
  3. Outcome-oriented investment priorities developed through close user-customer dialogue focusing on interagency delivery of improved passenger and freight service in response to measurable logistics, economic development, and quality of life impacts
  4. Emphasis on real time operations of upper level systems using the best available ITS technology for reliability, safety, and security in conjunction with new multi-jurisdictional operating entities, authorities or private corporations
  5. Enterprise-style management at all levels (strategic business plans) accomplished by a cross-trained staff maintaining core capabilities under performance incentive-driven employment agreements
  6. Streamlined project delivery for reduced schedule/cost risk via competitive turnkey contracting including public/private partnership franchises


7. Increased utilization of market mechanisms responding to customer willingness to pay (partnerships, tolls, commercialization) together with contemporary financial technology such as infrastructure banking, revolving funds and debt financing accessing nationally securitized capital markets
8. Incorporation of the best available technology in process activities (information systems), product development (material and process), and real time operation (intelligent systems)
9. Asset management orientation including investment trade-off analysis, supported by life-cycle design and true cost evaluation , based on improved performance monitoring

### **Issues for State DOT Strategic Management**

- ? Current Agenda Limitations – In an era when delivering a larger and more complex program with a smaller staff and tighter accountability in an ever-changing context is often the norm, strategic management is central to continued agency effectiveness. Management techniques, organizational models, staffing studies, and process analysis, innovative project delivery and finance are now significant parts of the normal state DOT senior management agenda



**Transportation Symposium**  
Boise Idaho  
August 22, 2000



**Beyond 2001**  
**The Coming World of Transportation**

**Glen Hiemstra**  
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What is Your Image of the Future of Transportation?



**CYCLES WONDER**  
SONS SOUPLES ET RAPIDES

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**Planning**

- ♦ Most planning begins with an image of the future based on predictions.
- ♦ Most predictions are made by extrapolating from current and past trends and so we plan for more of some things, less of other things.
- ♦ Hence, we end up planning to create a more efficient past, rather than a truly new future.

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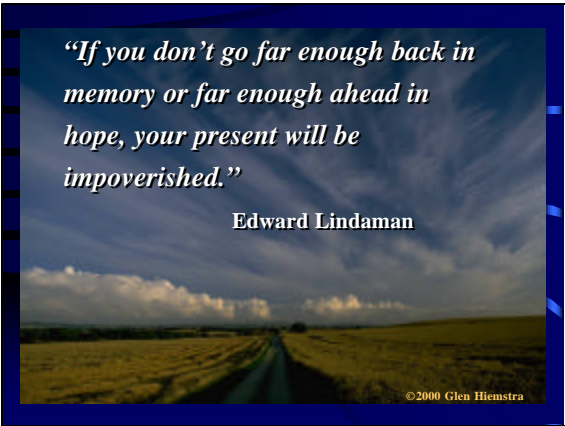
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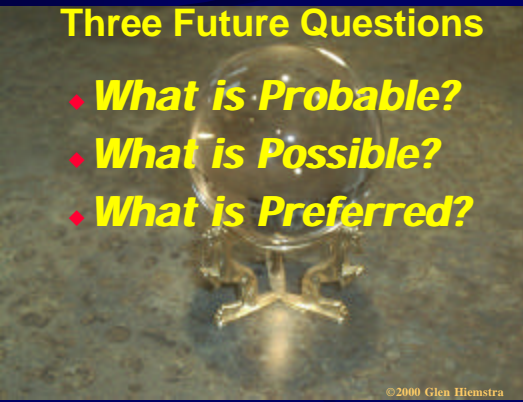
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**Three Future Questions**

- ◆ ***What is Probable?***
- ◆ ***What is Possible?***
- ◆ ***What is Preferred?***

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**Critical Trends for the Transportation Future**

- ◆ Demographics
- ◆ Economy
- ◆ Technology
- ◆ Automobiles
- ◆ Roadways
- ◆ Transit
- ◆ Airplanes

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**Techno-Social-Economic Revolution**

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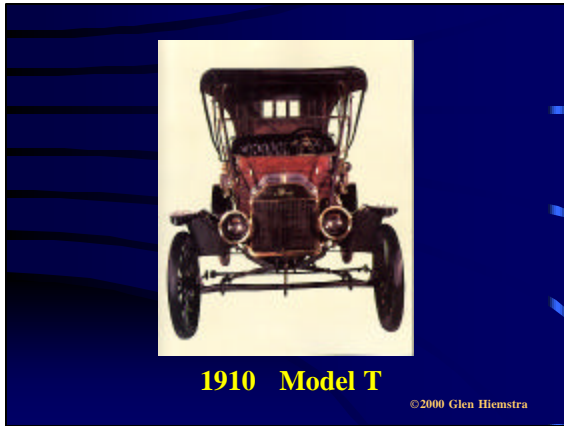
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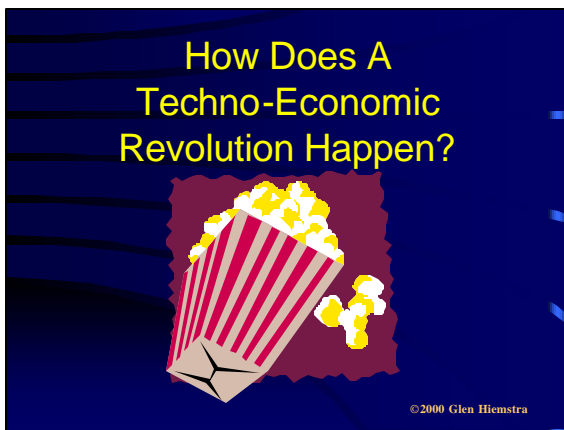
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Critical Drivers of the Future



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Demographic Dynamics

The Dynamics of Change



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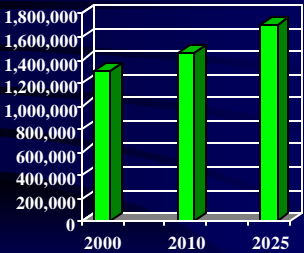
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Idaho State Population Growth



Year	Population
2000	~1,300,000
2010	~1,450,000
2025	~1,700,000

6th Fastest Growth Rate Among States in U.S. (+500K)

Source: Census Bureau

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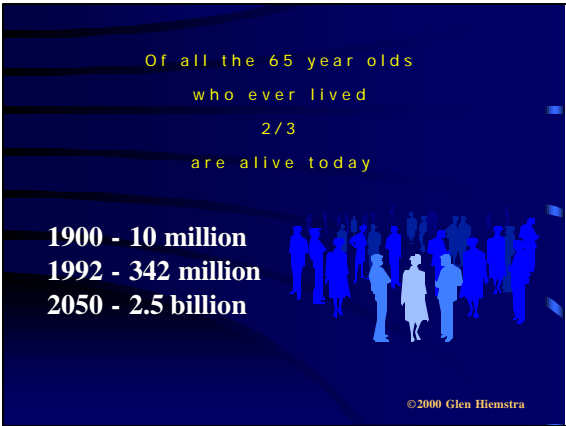
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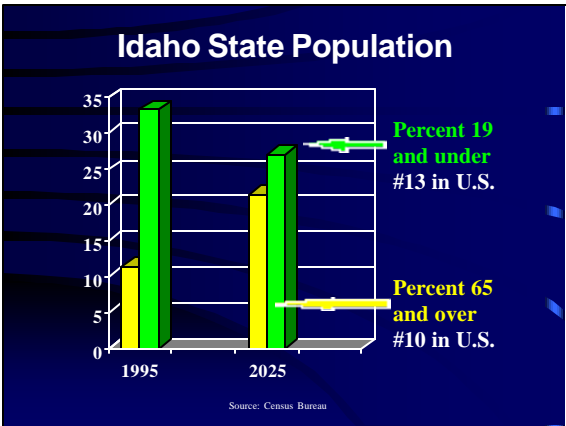
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**THE NETWORK ECONOMY**

◆ Global Economy  
Doubles Twice  
1995-2025



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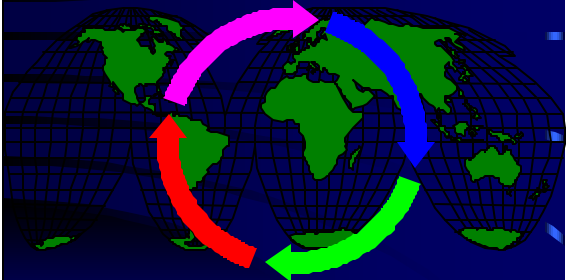
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**World GDP +2.5-6.3%**



**World Air Traffic Triples 2000-2025**

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**Genomics**

**Gene Chips Reveal Susceptibilities**



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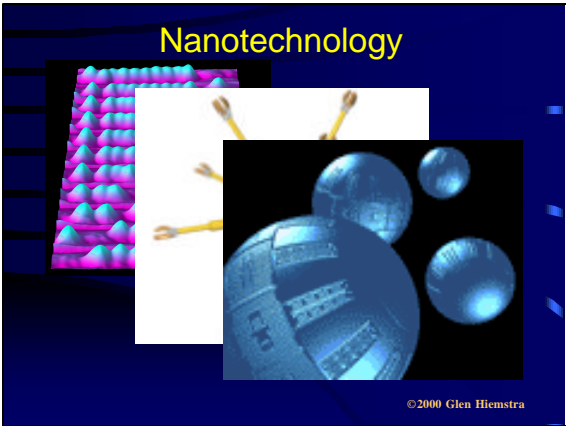
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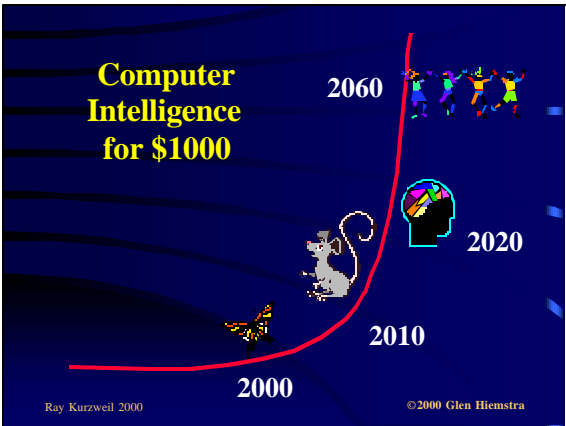
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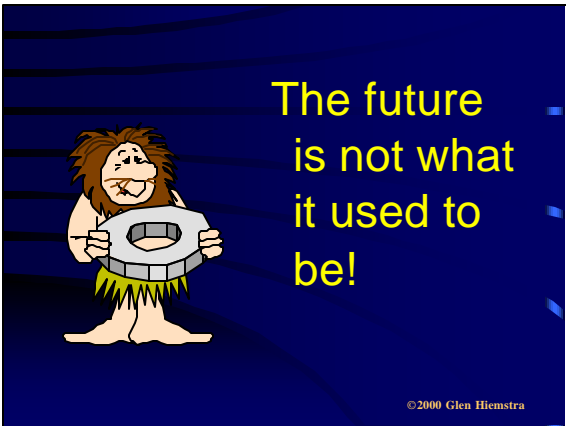
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### Three Keys to Future



- ◆ Technologically Feasible
- ◆ Economically Viable
- ◆ Socially/Politically Acceptable

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### Future Transportation Options



- ◆ Suspended Vehicle Technologies
- ◆ PRT
- ◆ Monorail
- ◆ Dual Mode Systems
- ◆ High Speed Train
- ◆ Evacuated Tube Transport
- ◆ Small Aircraft Transport System (SATS)

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<http://www.skytran.net/>

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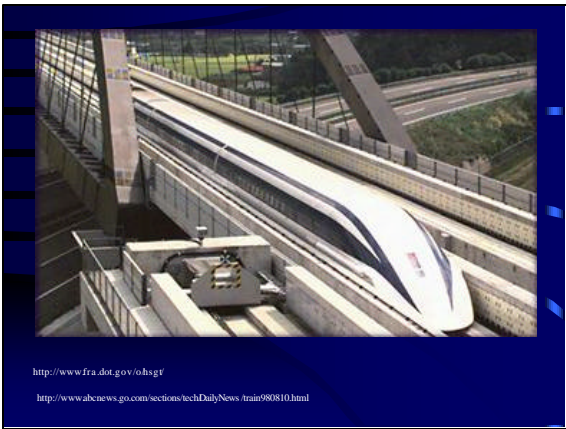
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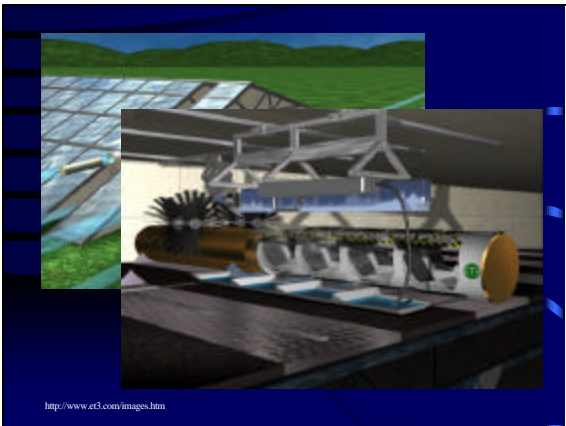
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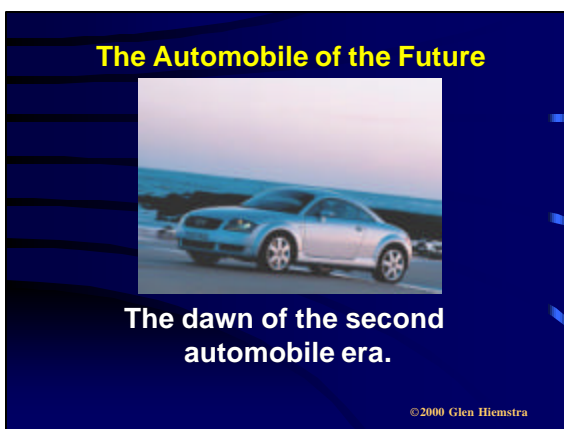
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**Hybrid 2000**

**Fuel Cell 2010**

Hybrid 2000: A silver Toyota Prius is shown with the text "Hybrid 2000" and "Fuel-ready to drive." below it.

Fuel Cell 2010: A fuel cell stack is shown with the text "Fuel Cell 2010" and "Fuel-ready to drive." below it.

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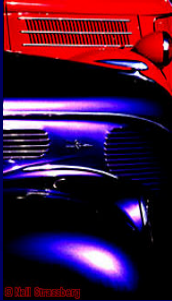
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**Smart Cars**

- ♦ Moving communication Studio
- ♦ Smart Tracking, Driving Devices
- ♦ Virtual Interactive Displays
- ♦ Systems Interactivity
- ♦ Completely autonomous by 2025



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**Future of Roadways**

- ♦ Over-all traffic increases, while the commute decreases
- ♦ New materials and built in intelligence
- ♦ Guideways appear
- ♦ Barrier separated truck-ways appear
- ♦ Augmented Reality Systems



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### Environmental Imperatives

- ♦ Air Pollution ceases to be the issue
- ♦ Materials become recyclable
- ♦ Impact on land use and sprawl is remaining issue for transportation
- ♦ Transportation integration



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### Safety Issues

- ♦ Rural Road Challenges
- ♦ Using ITS to get at Safety issues such as fatigue, error, aggressiveness
- ♦ Motor Carrier Safety
- ♦ Stepping up to 21st Century opportunity to re-think automobiles and begin preparation for true "autos"



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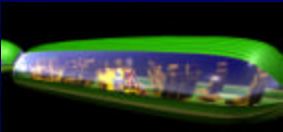

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### Future of Transit & Motor Carriers

- ♦ Limited future of transit as a commuting system (1/3 = 9-5)
- ♦ Best future in urban areas with high elder populations
- ♦ High-speed rail gains
- ♦ Intelligent Trucks and Increased Truck Traffic



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### Vision of Interactive Systems



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### What is Your Image of the Preferred Future?



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# Technological Trends

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Michael Kyte

Director

National Institute for Advanced Transportation Technology

University of Idaho

22 August 2000



# An Overview

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- A technology forecast: 1939 World's Fair
- Travel trends
- Intelligent transportation systems
- Technologies for travelers
- Technologies for transportation professionals
- Barriers and challenges
- Conclusions



28



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[www.futures.com](http://www.futures.com)

“There is nothing to see”

# A Technology Forecast: 1939 World's Fair

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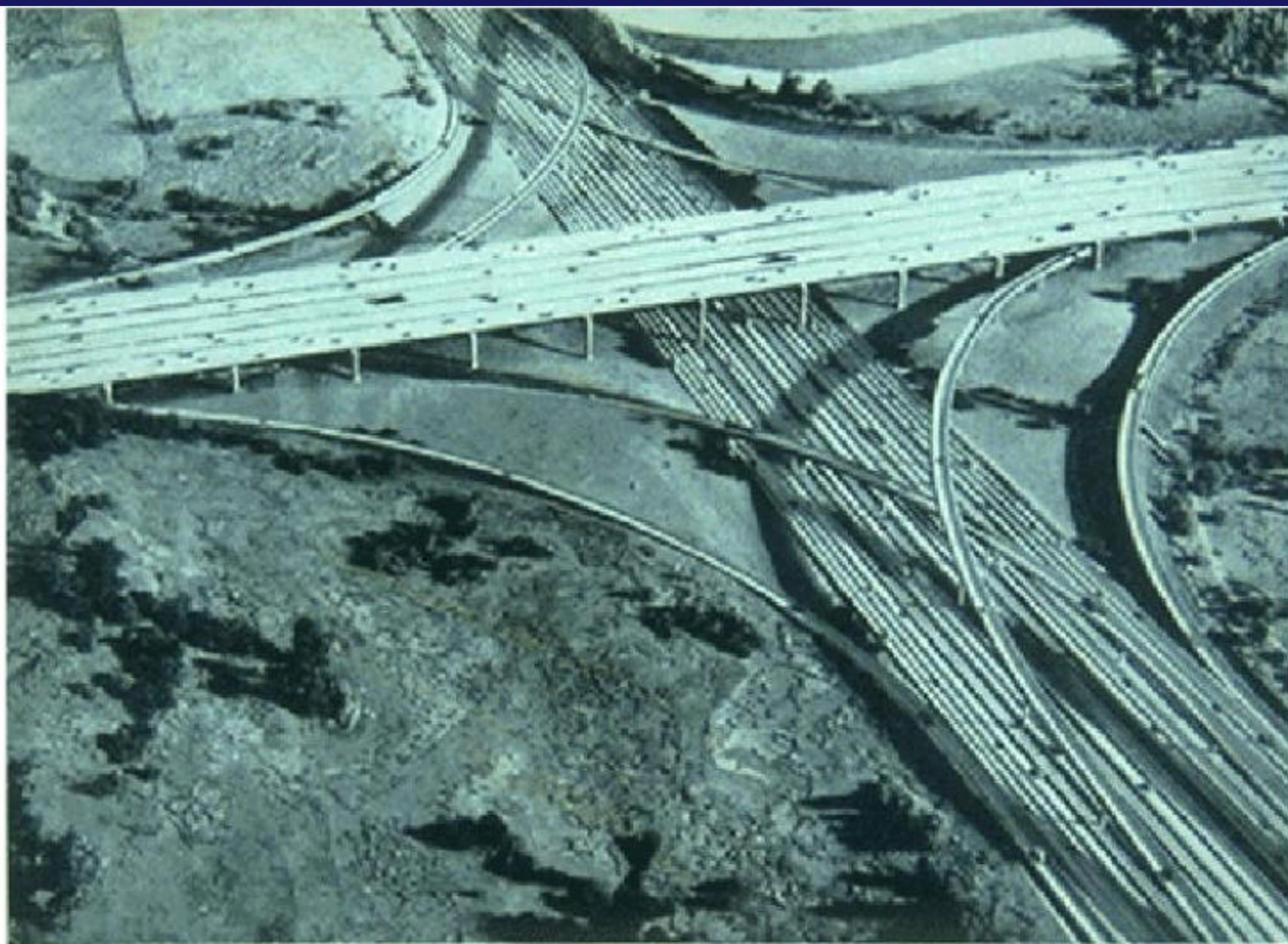










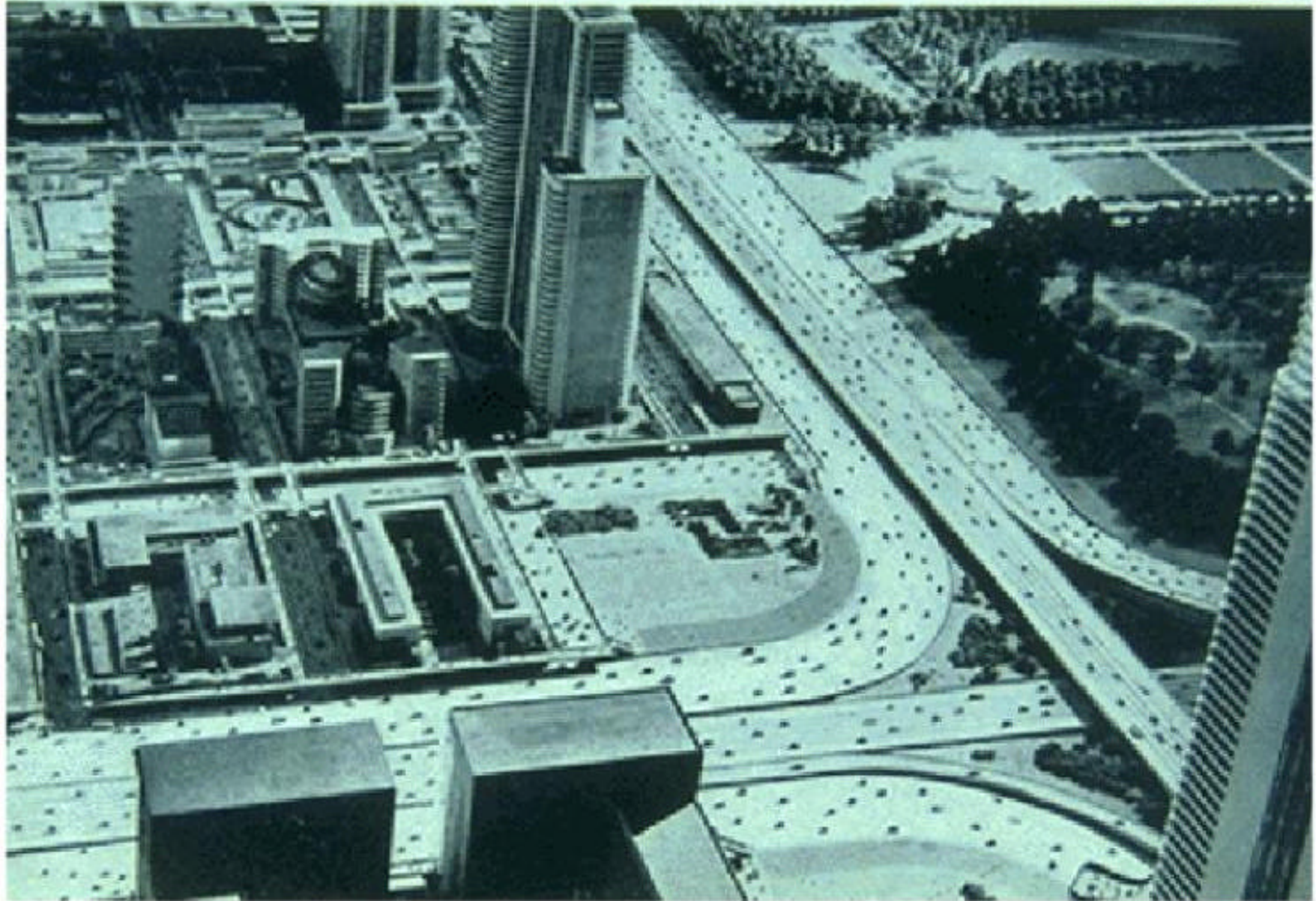


THE CROSSING POINT OF TWO FUTURE MOTORWAYS

Futurama Photo by Richard Gamble

A TYPICAL EXPRESS BOULEVARD INTERSECTION AND FEEDERS

*Futurama Photo by Richard G.*





Futureama Photo by Richard Garrison

CONTROL BRIDGE: FUTURE MOTORWAY STYLE

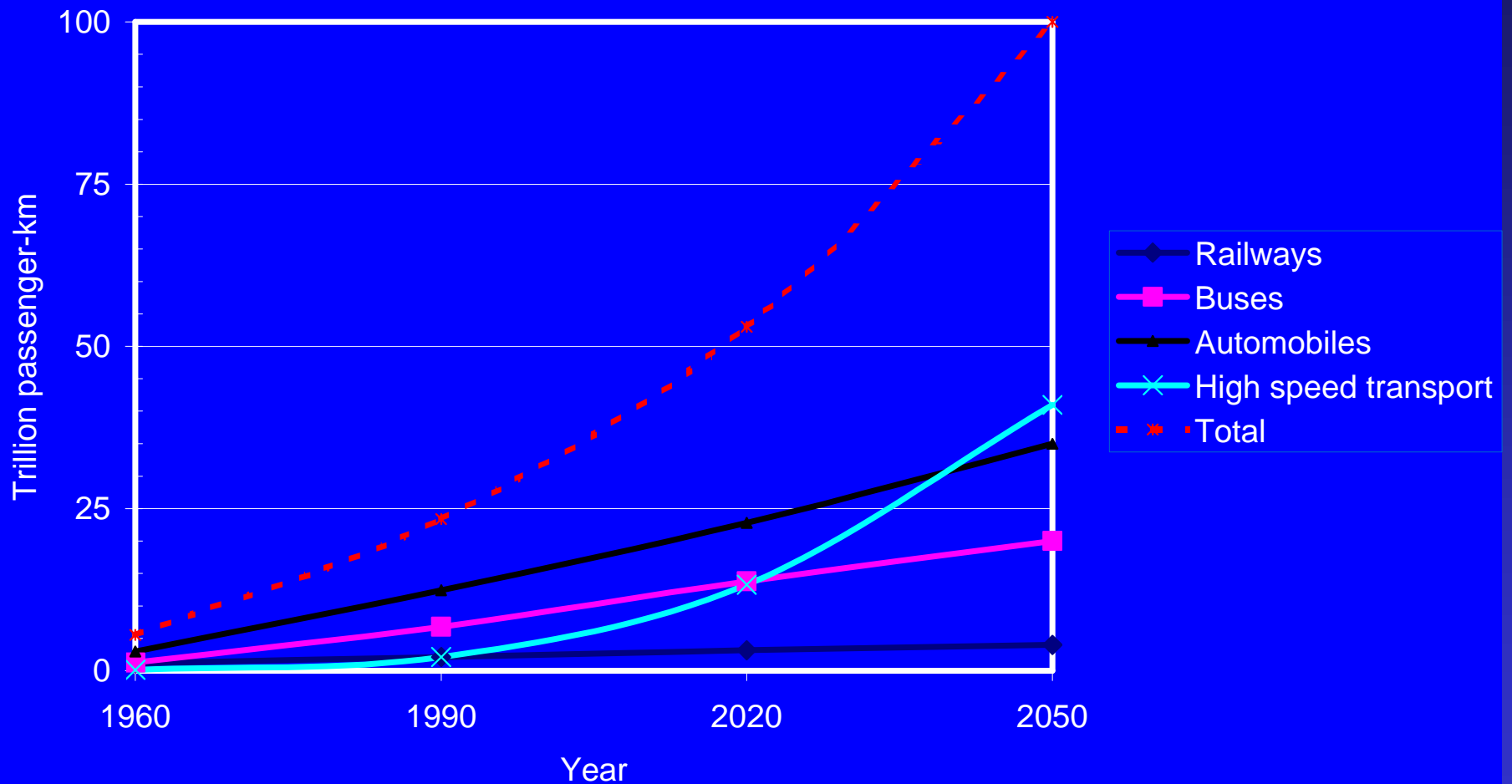
# Travel Trends

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## U.S. Census data

- Increasing number of vehicles
- Increasing number of trips
- Increasing length of trips
- Increasing trips by all population segments
- Increasing number of larger vehicles

# Travel Trends



# Travel Trends

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## One intrepid forecast

- In 20 years will we complain that gas prices were too cheap in 2000?
- Petroleum supplies dwindle and use for internal combustion engine is outlawed
- Fuel cell and electric technologies are good for commuting trips, but not for long-range trips
- Use of interstates outside urban areas drops to zero
- Maintenance of infrastructures becomes impossible
- Gas tax revenues drop dramatically

# Intelligent Transportation Systems

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What is ITS?

- Applications of communications, computing, and electronics to improve the operations and safety of our nation's transportation system

# Intelligent Transportation Systems

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## ITS program areas

- Metropolitan area
- Commercial vehicles
- Rural area
- Intelligent vehicles

# Intelligent Transportation Systems

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## ITS guiding principles

- Technically integrated and jurisdictionally coordinated
- On-going research and technology transfer
- Safe and cost effective
- New industry

# Intelligent Transportation Systems

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- Idaho ITS projects
  - Ada County travel demand management emissions detection
  - Idaho storm warning
  - Out of service verification
  - IOU electronic clearance
  - Portland-Boise corridor study
  - CVO mainstreaming
  - Western states transparent borders project

# Intelligent Transportation Systems

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- Idaho ITS projects
  - Treasure valley ITS planning study
    - I-84 integration project
  - Statewide ITS planning study
    - I-84 integration project
    - Road weather information
    - Commercial vehicle operations
    - Statewide communications

# Technologies for the Next 20 Years

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- Impact on travelers
- Impact on transportation professionals
- Barriers and challenges

# Technologies for Travelers that ...

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## Increase awareness of the state of the system

- In-vehicle navigation systems
- In-vehicle communications systems
- Variable message signs
- Real time transit vehicle arrival time information
- Internet/radio based congestion advisories
- Real time information about roadway and weather conditions
- Real time route guidance
- Real time ridesharing information

# Technologies for Travelers that ...

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Increase awareness of the state of the system

- Real time destination information
- Real time congestion information

# Technologies for Travelers that ...

---

## Increase safety of the travel experience

- Red light running control
- Adaptive speed control
- In-vehicle incident detection
- Theft control
- Collision avoidance systems
- Front and rear mounted radar for vehicle spacing and control
- Drowsiness detection
- Assisted braking

# Technologies for Travelers that ...

---

## Increase safety of the travel experience

- Automatic vehicle locators
- Night driving enhancements
- On-board vehicle emergency systems
- Warning systems that sense and then advise drivers of potential hazards
- Control assistance systems that augment the drivers ability to control the vehicle
- Control override systems that intervene in some aspect of the control of the vehicle during unsafe conditions
- Automated control systems that control all motions of the vehicle

# Technologies for Travelers that ...

---

## Reduce cost of travel

- More fuel efficient vehicles
- Hybrid vehicles
- Fuel cells
- Alternative fuels
- Lithium ion battery technologies
- Improved fare collection systems

# Technologies for Travelers that ...

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## Do other things

- Telecommunications, providing an alternative to travel
- Machine readable vehicle identification systems to speed toll collection and for automatic vehicle location
- Wireless communications
- Personalized travel information
- High speed rail systems
- Personalized vehicles for specialized purposes
- E-commerce (trip reductions and increases)

# Technologies for Travelers that ...

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## Internet

- Faster
- Universally available
- Wireless
- Lower cost
- Super high speed
- Video teleconferencing
- Other things that we can't think of now

# Technologies for Transportation Professionals that ...

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Improve communication among individuals and among organizations

- Voice-over internet protocols
- Video conferencing
- Virtual private networks
- Integrated voice/email/fax systems
- Collaboration at a distance
- Information sharing using computing systems

# Technologies for Transportation Professionals that ...

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## Enhance our ability to access information

- Open architecture data bases
- Improved data storage media
- Virtual universities-acquisition and maintenance of technical information available anytime
- Better real time sensors
- Better detection technologies
- Real time safety information
- Automated fees and licensing

# Technologies for Transportation Professionals that ...

---

Enhance our ability to access information

- Roadway condition monitoring for ...
  - Maintenance
  - Snow removal
  - Congestion management
  - Incident detection
- Computer based design guides

# Technologies for Transportation Professionals that ...

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Automate routine activities that allow professional to concentrate on more creative/thoughtful work

- Filing
- Copying
- Report production
- Robotics for maintenance and construction

# Technologies for Transportation Professionals that ...

---

## Do other things ...

- Two way communications to smart vehicles
  - Send speed advisory or other information
- Improved traffic control systems
- Advanced materials for construction
- Simulators for testing and evaluating designs
- Simulators for visualizing designs

# Technologies for Transportation Professionals that ...

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## Wireless communications

- Fleet management
- Snow removal
- Traffic signal systems management
- Environmental monitoring
- Device tracking

# Technologies for Transportation Professionals that ...

---

Internet or whatever it becomes next...

- Faster
- Becomes primary source of all information
- More bandwidth
- Something we haven't thought of yet

# Technologies for Transportation Professionals that ...

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## Faster computing...

- Signal timing
- Management of infrastructure
- Management of congestion
- Advanced modeling and design tools
- Real time traffic prediction
- Distributed data bases for all state DOT functions

# Barriers and Challenges

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- Institutional barriers:  
coordination/communication
- Lack of trained personnel
- Personal barriers
- Funding constraints
- Public acceptance
- Unwillingness to fail
- Lack of technology champions

# Barriers and Challenges

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- Privacy issues
  - Video detection
  - Vehicle locators (GPS)
  - Other monitoring
- Computer security
  - Intrusions
  - Denial of service
  - Viruses
- Others

# Barriers and Challenges

---

- Innovation in transportation
  - Requires an educated work force
  - Requires a commitment to long-term enabling research
  - Requires collaboration and partnership

# Barriers and Challenges

---

- For Idaho...
  - Geographically-dispersed population centers
  - Under-developed rural infrastructure
  - Low tax base
  - Rapidly growing urban centers
  - Environmentally sensitive areas throughout state
  - Distrust of government solutions

# Conclusions

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Futureama Photo by Richard Garratt

CONTROL BRIDGE: FUTURE MOTORWAY STYLE

# Conclusions

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- Travelers will have much more information about the system and will be able to make better choices
- Vehicles will be safer and smarter
- Travel will be more environmentally friendly
- Travel by alternative vehicles will increase
- E-commerce will change travel patterns
- Telecommuting will change travel patterns

# Conclusions

---

- Professionals will have access to information when they need it
- Professionals will work together at a distance
- System operations information will be available when needed

# Conclusions

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- If....

# Conclusions

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- “In any forecasting, there is a (probably unavoidable) tendency to extrapolate present situations into the future. Twenty years ago, for example, who foresaw the existence of the WWW, much less its impact?”

Fred Hall, McMaster University



# Urbanization & Growth:

*Challenges and Opportunities for  
Transportation Management*

By Todd Litman

*Victoria Transport Policy Institute*

Presented 22 August 2000

The Coming World of Transportation

Boise, ID

# *What is "the" urban transportation problem?*

- Traffic congestion?
- Excessive transport facility costs?
- Excessive consumer costs?
- Traffic Crashes?
- Lack of mobility for non-drivers?
- Global environmental impacts?
- Traffic impacts on communities?
- Others?

## *Considering Multiple Objectives*

Transportation planning often focuses on just one or two problems at a time. As a result, it undervalues strategies that provide multiple but modest benefits, and can result in solutions to one problem that exacerbate others.

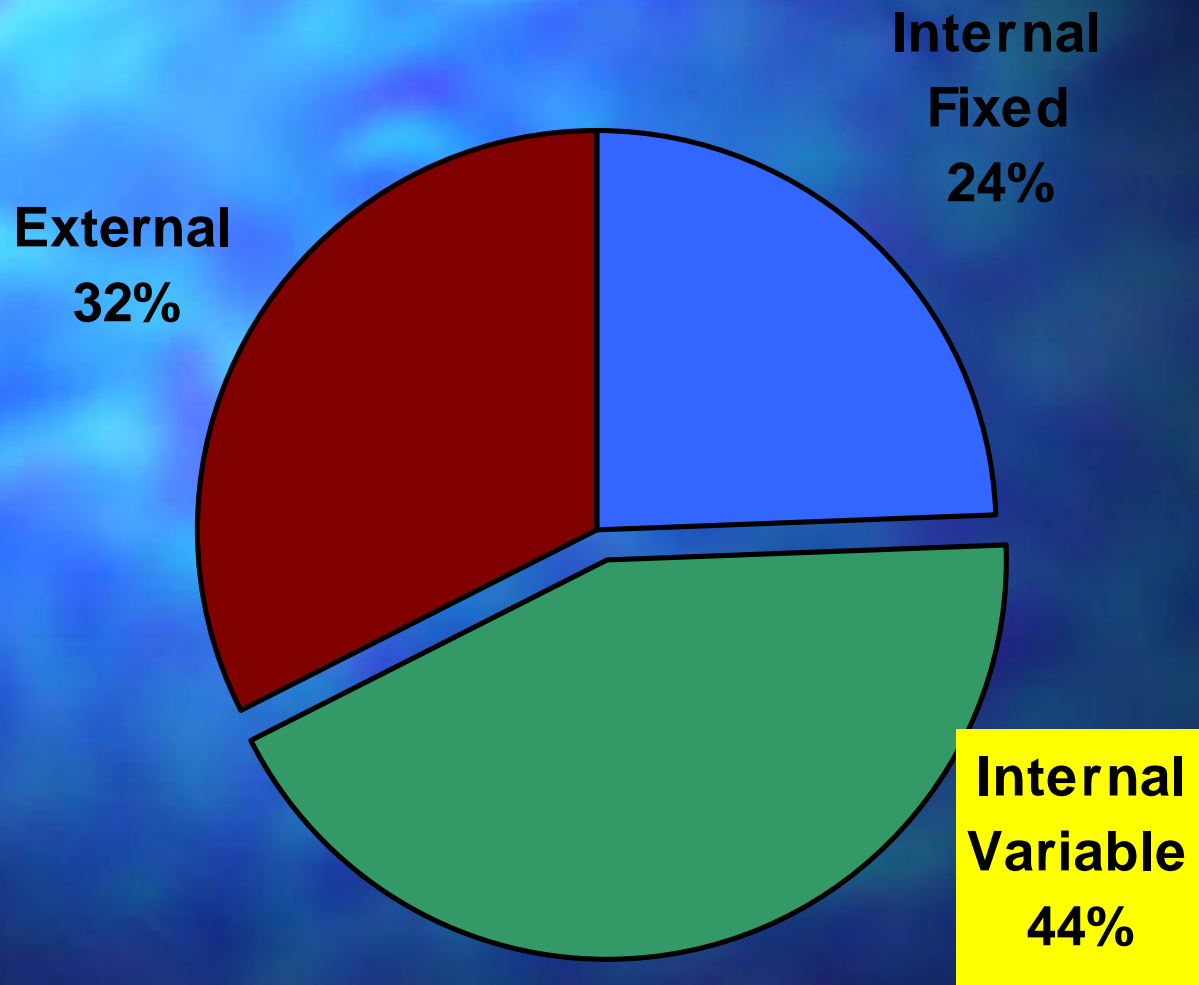
# *Transportation Demand Management*

Transportation Demand Management (TDM) includes strategies that increase transport choices and give individuals more incentive to use transportation resources efficiently.

# *Transportation Demand Management*

TDM often involves correcting current market distortions that cause excessive automobile use. This is not to suggest that cars are “bad,” rather that they are often used inefficiently.

# *Costs of Driving*



# *Current Market*

Motorist Reduces Mileage

Reduces Costs

(Congestion, Road and Parking Facility Expenses, Crashes, Environmental Impact)

Cost Savings Dispersed Through Economy

# *Efficient Market*



# *TDM Represents Innovative Management*

- Work smarter, not harder
- Think outside the box
- Turn problems into opportunities
- Think strategically
- Build partnerships
- Satisfy niche markets
- Work with customers

# *TDM Can Provide Multiple Benefits*

- Reduced traffic congestion
- Road and parking facility savings
- Consumer savings and choice
- Increased equity and mobility for non-drivers
- Road safety and healthy exercise
- Environmental protection
- Neighborhood livability
- Economic productivity and development

# *Economic Development Impacts*

- TDM can reduce congestion (particularly beneficial for shippers and commercial travelers, who have a high time value), facility expenses (and therefore facility costs and taxes), crashes and environmental damages, which saves business overhead costs.
- One million dollars spend on vehicle fuel produces only about 4.5 jobs, less than most other consumer goods, and just a fifth of the jobs produced by the same expenditure on transit.

# *Win-Win Transportation Solutions*

Technically feasible, market-based reforms justified for their economic benefits, which also provide significant social and environmental benefits.

## *Win-Win Solutions*

Win-Win strategies are a type of preventive medicine, equivalent to putting the transportation system on a healthier diet. They apply the discipline of the market to transportation choices.

## *Win-Win Solutions*

Although their individual impacts may appear modest, the combined benefits of Win-Win strategies can be substantial.

## Distance-Based Vehicle Insurance and Registration Fees

Insurance and registration fees are prorated by annual vehicle miles. This provides a significant financial incentive to reduce driving while making these charges more fair and affordable. This concept is being implemented in Texas.

## Reform Motor Carrier Regulations

State regulations often restrict private companies from providing new transportation services. They prevent cost-effective, market-based rideshare services.

## Road and Congestion Pricing

Road pricing means charging road users tolls. Congestion pricing is road pricing with higher fees during congested periods to manage demand.

## Lease-Cost Transportation Planning

Least-cost planning means that demand management strategies compete equally for funding based on outcomes, that indirect impacts are considered in planning analysis, and that the public is involved in evaluating alternatives.

## Parking Pricing and Management

There are many ways to manage parking more efficiently, including flexible parking requirements to avoid excessive supply, paid rather than free parking, and shared parking. Charging motorists directly for parking is one of the most effective TDM strategies.

## Commuter Financial Incentives

This means that commuters who are offered free or subsidized parking are also offered a comparable benefit if they use alternative modes. This tends to reduce automobile commuting 15-25% where implemented.

## Transportation Management Associations

Business associations that provide transportation and parking management services in a particular area, such as a commercial district. This provides a framework for implementing many TDM strategies.

## School and College Transport Management

School and campus transport management encourages students, parents and staff to reduce their automobile trips. This can reduce car trips 10-30%, increase travel options, and encourage healthy exercise.

## Location Efficient Housing and Mortgages

Location Efficient Mortgages recognize that households located in more accessible neighborhoods can save on vehicle costs, leaving more money for housing. This gives home-buyers greater incentive to choose less automobile-dependent neighborhoods.

## Nonmotorized Transportation

Pedestrian and bicycle improvements are important for developing a more balanced transportation system.

Residents of communities with good walking and cycling conditions drive less and use transit and rideshare more.

## Smart Growth

- Encourage cluster development with self-contained neighborhoods.
- Avoid overly-restrictive zoning.
- Encourage quality, higher density development.
- Develop a network of relatively direct, interconnected street.
- Design streets to accommodate walking and cycling.

# *Online TDM Encyclopedia*

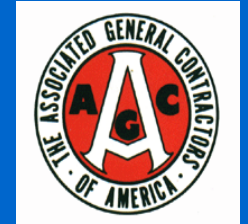
Includes detailed information on 40+ travel management strategies. It is being developed by VTPI. It is posted in draft form, and should be available in final form next month.

# *Online TDM Encyclopedia*

- Description
- How it is implemented
- Travel Impacts
- Benefits and costs
- Equity Impacts
- Stakeholders
- Barriers to implementation
- Examples and case studies
- References and resources for more information

# *For More Information*

- Victoria Transport Policy Institute  
[www.vtpi.org](http://www.vtpi.org)



# Building Better Communities



Loren E. Sweatt  
Associated General Contractors

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# Building Better Communities

“Nobody goes there anymore.  
It’s too crowded.”  
.....Yogi Berra



# Building Better Communities

- Toolkit Focuses On:
  - Choice
  - Economic Development
  - Opportunity
  - Infrastructure investments = Safety
  - Environmental Improvement = Economic Development



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## Key Facts

- People choose where they live based on a perception of safe streets and good schools
- More people are commuting from one suburb to another
- The fastest way from welfare to work is in a car.
- Changing demographics placing more demand for a variety of lifestyle choices.



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# Neotraditionalism

- Movement advocating “walking communities”
- Encouraging infill development
- Emphasis on transit
  - Light Rail
  - Busses
- Suburbs and other, similar developments, disliked



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# Case Studies

- Portland, Oregon
- Los Angeles, California
- Washington, DC
- European Model



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# Idaho Statistics

- 1% of Idaho can be defined as urbanized land.
- 57% of the population lives in area considered urbanized.
- 45th in urbanization
  - Only AK, NV, WY, UT less urbanized
- High percentage of population have chosen rural lifestyles.



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# Idaho Statistics

- Over the last 10 years:
- Population increased 17%
- Vehicle miles traveled increased 65%
- Total hydrocarbon emissions down 4%
  - Highway emissions account for only 9% of total emissions



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# Prescription or Prediction?

- Urban revitalization
- Neotraditionalism
- Idaho does not mirror large, dense cities
- Growth inevitable



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# Where do you want to go tomorrow?

- How do you want to get there?
- What does the population want?



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## Conclusion

- Highways play an integral, important part in traffic congestion solutions.
- Providing a variety of transportation solutions is important.
- Applying solutions that do not meet the traffic needs of the population is a waste of money.

